

heat exchanger on demand and this hot product water may be diverted directly to storage tank/buffering tank. In some embodiments, the system may include a processor and the processor may be preprogrammed to schedule the bypassing of the hot water to a storage tank/buffering tank. For example, in some embodiments, it may be desirable/beneficial to preprogram the bypass for example for the morning and the afternoon. This may provide ample hot water in the storage tank/buffering tank for delivery to a KEURIG® machine and/or other hot beverage dispenser, which may save time during this high demand times for hot beverages, including, for example, but not limited to, coffee and/or tea, in a shared appliance setting, for example.

[0017] In various embodiments, the spigot and/or KEURIG® machine (or any other appliance or apparatus) may include a manual valve where, when open, the at least one pump detects a drop in pressure and turns the pump on, and water is delivered to the spigot or other appliance or apparatus. When the valve is closed, the pump detects a rise in pressure and then stops pumping water. In some embodiments, a first pump is fluidly connected to the spigot and a second pump is fluidly connected to the KEURIG® machine (or any other appliance or apparatus). As discussed herein, in various embodiments, a single pump may be used. In these embodiments, the pump may include a “T” in the fluid line leading out of the pump, where one line leads to a chiller/spigot or other appliance or apparatus and the other leads to a KEURIG® machine (or any other appliance or apparatus)

[0018] The term KEURIG® machine is used herein, however, this disclosure is not limited to a KEURIG® machine. Rather, any appliance and/or apparatus may be used within the system disclosed herein. Other appliances may include, but are not limited to, soda dispensers (including a Soda Stream), water dispensers, coffee makers, electric kettles, juice maker, blenders, etc.

[0019] While the principles of the invention have been described herein, it is to be understood by those skilled in the art that this description is made only by way of example and not as a limitation as to the scope of the invention. Other embodiments are contemplated within the scope of the present invention in addition to the exemplary embodiments shown and described herein. Modifications and substitutions by one of ordinary skill in the art are considered to be within the scope of the present invention.

1-23. (canceled)

24. A system for water dispensing comprising:

- a housing comprising a first and second portion;
- a hot beverage dispenser located separate from the housing;
- a water vapor distillation apparatus housed in the first portion, the water vapor distillation apparatus comprising an evaporator/condenser and a liquid heat exchanger, the evaporator/condenser producing a hot distilled water product, wherein the hot distilled water product is directed to the hot beverage dispenser;
- a storage tank housed in the second portion and fluidly connected to the hot beverage dispenser and the water vapor distillation apparatus; and
- a processor,

wherein the processor directs hot distilled water product to the storage tank.

25. The system of claim 24, further comprising a pump housed in the second portion and fluidly connected to the

storage tank and the hot beverage dispenser, wherein the distilled water product is stored in the storage tank and the pump pumps water from the storage tank to the hot beverage dispenser appliance.

26. The system of claim 24, wherein the hot distilled water product that is not directed to the storage tank, flows through the liquid heat exchanger and exits as a distilled water product.

27. The system of claim 24, further comprising an accumulator and a water appliance, where the accumulator is fluidly connected to the storage tank and to the appliance.

28. The system of claim 25, further comprising a manual valve fluidly connected via the pump to the storage tank, wherein the pump actuates based on a detected fluid pressure.

29. The system of claim 25, wherein the pump turns on when the detected pressure decreases.

30. The system of claim 25, wherein the pump turns off when the detected pressure rises.

31. The system of claim 25, further comprising a chiller fluidly connected to the accumulator and the water appliance.

32. The system of claim 25, further comprising a pump that moves water from the storage tank to the accumulator.

33. The system of claim 24, wherein the processor is preprogrammed direct the hot distilled water product to the storage tank at a preprogrammed time.

34. A system for water dispensing comprising:

- a housing comprising a first and second portion;
- a hot beverage dispenser located outside from the housing;
- a water vapor distillation apparatus housed in the first portion, the water vapor distillation apparatus comprising an evaporator/condenser and a liquid heat exchanger, the evaporator/condenser producing a hot distilled water product, wherein the hot distilled water product either enters the liquid heat exchanger and exits as distilled water product or is diverted to the hot beverage dispenser;
- a storage tank housed in the second portion and fluidly connected to the liquid water vapor distillation apparatus, the storage tank stores distilled water product;
- a pump moves water from the storage tank to a water appliance; and
- a processor that directs hot distilled water product to the hot beverage dispenser.

35. The system of claim 34, wherein the processor directs hot distilled water product to the hot beverage dispenser at a preprogrammed time.

36. The system of claim 34, further comprising chiller housed in the second portion.

37. The system of claim 34, further comprising sensor in the storage tank.

38. The system of claim 37, wherein the sensor comprising a volume full sensor.

39. The system of claim 37, wherein the sensor comprising an empty tank sensor.

40. The system of claim 37, wherein the sensor comprising a volume full sensor and an empty tank sensor, wherein the volume full sensor and the empty tank sensor are switches with hysteresis.

41. The system of claim 40, wherein when the volume full sensor and empty tank sensor indicate the storage tank is